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The African Population and Health Research Center (APHRC) and the University of the Witwatersrand, in collaboration with a group of international academic and research institutions, established the Consortium for Advanced Research Training in Africa (CARTA) in 2008. CARTA's overarching goal is to build a vibrant African academy able to lead world-class multidisciplinary research that impacts positively on public and population health. CARTA currently comprises eight African universities, three research institutes, and select Non-African partners with a history of successful collaboration with African academic institutions.

Over time, CARTA has contributed to strengthening doctoral and post-doctoral training on the continent by enhancing the local production of internationally competitive well-trained African academics. Since recruiting its first cohort, CARTA has supported 230 PhD fellows and of these 96 have graduated. CARTA fellows and graduates have excelled in academic output and have currently published over 1138 papers in reputable journals; have won grants worth over US$19 million and continue to disseminate their work through local and international conferences. CARTA has so far provided 57 post postdoctoral fellowships and re-entry grant awards. These achievements strongly support the relevance of CARTA and as articulated in an external evaluation of CARTA, the CARTA model is a valuable means of introducing novel, relevant and effective approaches, along with institutional processes, into doctoral programs that are in need of reform. The evaluation report goes on to state that the program is comprehensively conceptualized with a focus not only on the fellows but also their supervisors; not only on South-North collaboration but focused on South-South collaborations and not only on the research itself but the research-supportive institutional environment which facilitates research productivity and a culture of valuing research among institutional staff – both academic and administrative.

As we commemorate CARTA's 10th anniversary, this newsletter showcases some of CARTA's great accomplishments and reflects a determination to ensure that the impact of CARTA is institutionalized and sustained.

Going Virtual and Local: CARTA's New Normal

By CARTA Program Managers and Communications Officer

When the World Health Organization declared the Covid-19 outbreak as a public health emergency of international concern in March this year, it set the stage for major disruptions. The pandemic declaration resulted in the institution of measures that have had a major impact on life, business operations, community interactions, and development programming.

For CARTA, whose African partner institutions are distributed in seven (7) countries in Africa – South Africa, Nigeria, Kenya, Uganda, Tanzania, Malawi, Rwanda, one of the biggest disruptions was the closure of the African partner universities as a result of government directives in the various countries. Since travels (both local and international) were restricted, many of the face-to-face activities that CARTA had scheduled for 2020 were also disrupted. These included the mandatory Joint Advanced Seminars (JAS) sessions that are critical to the realization of the CARTA doctoral fellows’ milestones. Institutional support to CARTA fellows, including supervision, ethical approvals, examination processes, and Senate approvals, were also affected by these closures in some institutions.

Doctoral fellowships were slowed down, not only by institution-related limitations but also by restrictions to research activities requiring face-to-face data collection, travel, and laboratory-based research. Additionally, institution-based projects were slowed down, since there were limited activities taking place at the universities.

Mitigating the impact of Covid-19 on the CARTA program - The quest for an alternative way forward

From the onset of the COVID-19 pandemic, CARTA was keen to ensure that its planned schedules took place amidst limitations, though considering alternatives ways that would support the realization of the year’s targets. More specifically, CARTA re-organized its activities and embraced virtual space for convening its governance meetings, including the Executive Directorate meetings, Partners’ Annual Forum, and the Board of Management meetings. The latter part of JAS 1 (for Cohort 10) and 4 (for Cohort 7) sessions that were ongoing at the onset of the global pandemic (in March 2020) were completed using virtual platforms. On the other hand, the JAS 3 session (for Cohort 8) that was initially scheduled to take place in August 2020 was rescheduled to have diagnostic sessions commence virtually in December 2020 and the greater part of the sessions take place in January and February 2021. The rescheduling of JAS 3 was necessitated by the need to provide ample time to transit to blended sessions, consisting of virtual and face-to-face sessions. The first part of JAS 2 (for Cohort 10), which was carried out virtually, commenced for four weeks in November 2020. It also incorporated two weeks of localized residential sessions within the four-weeks, in order to provide the fellows with protected time to focus on their deliverables and to engage in collaborative activities and networking. The latter part of this JAS 2 session will be carried out in March 2021.

In April 2020, the program convened a virtual meeting with the Vice-Chancellors of the African partner universities to assess the effect of the COVID-19 pandemic on the CARTA activities at the institutional levels; understand the response of each institution to the situation at hand while
also learning from each other, and establish the progress being made by each institution to provide support to post-graduate research programs during the pandemic period. CARTA also made follow-ups with its fellows and institutions to establish the implications of COVID-19 on fellowships and projects, while also providing guidance on alternative ways of working and achieving the targets at hand. These ways included embracing online platforms to support their activities; re-organizing the planned activities based on the situation; and prioritizing activities that did not require face-to-face interactions. CARTA has continued to hold meetings with its various stakeholders to assess the situation at hand, monitor progress, and forge a way forward with respect to the realization of CARTA’s objectives.

We also changed the format of the planned CARTA@10 Celebrations to have a virtual encounter with a series of events including social media campaigns, webinars, and articles/media pieces, happening over a period of time. The closing event, the CARTA@10 scientific conference, took place on December 3 and 4, 2020 and the book of abstracts will be published in the Open Science Framework.

**Future Prospects in a Covid-19 and Post-Covid-19 World**

Almost a year into the pandemic, it is clear that there will be lasting changes in the way the world operates. CARTA recognises the fact that the post-Covid-19 world will likely include an aspect of virtual learning, with greater emphasis being given to blended learning, regardless of whether travel restrictions are lifted or not. Consequently, we are already making adjustments to accommodate a future where travel will be less common and where blended learning will be the norm rather than the exception. The CARTA community, including the secretariat, fellows, supervisors, focal persons, facilitators and leadership, need to embrace the new normal and innovative data collection techniques, new ways of teaching and learning, and new ways of social interacting and staying connected.

CARTA is therefore strengthening its capacity to conduct online training. As such, the program has engaged an e-learning expert to review the curriculum and advise on what and how to transition to the virtual learning space. This is the first step in developing a comprehensive blended learning program that we expect to continue using in the future. In addition, we have expanded and fast tracked the digitization of the CARTA curriculum and pedagogy after a successful pilot that was concluded in 2019. The digitized content will support our strategy to strengthen decentralized mini-trainings and mainstream CARTA interventions.

The disruptions brought about by the Covid-19 have been significant, but have brought along lessons to learn and build a spirit of resilience within the CARTA community that has enabled the program to get back on track amidst the setbacks of the ongoing pandemic. By embracing the new normal, the CARTA program resumed full operations to the extent possible and with adequate considerations for the health and safety of the CARTA community members. We look forward to the CARTA post-Covid-19 future that will be surrounded by blended learning and greater decentralization of CARTA activities.

Florah Karimi and Marta Vicente-Crespo are the Consortium for Advanced Research Training in Africa (CARTA) Program Managers and Gloria Chemutai is the program’s Communications Officer.

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**Ten Years of CARTA: Towards Better Research Training in Africa**

By Gloria Chemutai, CARTA Communications Officer

Over a decade ago, Africa was faced with the challenge of PhD capacity. Opportunities for PhD training abroad were dwindling, and the existing faculty in the continent was ageing, signaling a more significant crisis. In 2006, APHRC officials kicked off a series of meetings with University leadership in Nairobi, which ultimately led to the Consortium for Research Training in Africa (CARTA). According to Alex Ezeh, the founding co-director of CARTA, the sessions sought to “look at how to support doctoral training in Africa and explore the opportunities and areas of intervention that could strengthen university-wide systems in order to ensure research excellence in African universities.”

Sharon Fonn, CARTA’s co-director, introspectively looks at CARTA today. She notes that the most significant success has been seeing the fellows in the program grow and develop. She particularly praises the multidisciplinary nature of the program. “We have people from all sorts of disciplines because we believe that answers to the complex problems we face in the world today do not come from one single discipline,” she says. She believes that this makes CARTA truly unique and sees it as an enormous strength.

Doctoral Training to Assuage Low PhD Capacity

Two key reports have aptly captured how dire the situation of doctoral training in Africa was. They include a joint report by the International Association of Universities (IAU) and the Catalan Association of Public Universities (ACUP) and another by Higher Education Research and Advocacy Network in Africa (HERANA) from 2014. According to the British Council and DAAD’s report on Building PhD Capacity in Sub-Saharan Africa, the two show that “there is low or inconsistent PhD capacity despite the significant expansion in master’s level graduations – an issue related to funding and supervisory capacity.” The reports also mention the lack of evaluative mechanisms to assess the quality and socio-economic relevance of PhD outputs.

The formation of CARTA was to address this challenge. The founding directors had in mind creating a program that could build the next generation of African scholars and researchers. They were motivated by the fact that there was expertise scattered all over the continent, and “our focus was to bring this together to create an experience where someone going through
doctoral training anywhere in Africa, will be able to experience the same set of quality support and training that others got elsewhere," says Alex.

Upon formation of the consortium, CARTA sought to sustain a critical mass of highly trained African scholars at the PhD level, advance graduate training through institutionalizing CARTA innovations at African partner universities, and secure the future of CARTA graduates by mentoring them to become leaders in their research fields. Now, as the program looks beyond the first decade, it aspires to add the creation of research hubs and enhanced community engagement to its footprints.

**CARTA Milestones**

Over the years, some studies and reports have looked into CARTA's work and evaluated its model positively. Four years into the program, The Swedish International Development Agency (SIDA) evaluated the CARTA model titled Evaluation of the Consortium for Advanced Research Training in Africa (CARTA). The evaluation was full of praise for the CARTA model, mentioning that it is a model that can be applied more broadly. "It appears to be a valuable means of introducing novel, relevant, and effective approaches, along with institutional processes, into doctoral programs that need reform. There is reason to conclude that a CARTA-like approach could be appropriate in other disciplines and geographic areas," stated the report.

Dieudonne Uwizeye, who studied how the CARTA fellowship builds collaborative research output between early-career health researchers in Africa, writes in these same lines. He believes that "investing further in this practice can be deliberately encouraged even after the fellowship to enhance peer-learning and research capabilities, and produce quality and productive researchers on the African continent." In his study, he found that the "interventions of the CARTA program have potential to stimulate collaborative-minded researchers on the African continent".

**Promoting Research Excellence**

It has been ten years of CARTA and, looking back, a lot has been achieved. In a study led by Jude Igumbor in 2020, the authors found that of the 159 fellows, enrolled between 2011 and 2018, 140 of them had published 806 articles in peer-reviewed journals over the eight years. Further, the articles are available in over 6,300 online versions and have been cited in over 5,500 publications.

The research undertaken by CARTA fellows has been relevant to the African situation and the CARTA goals. Of the 806 articles, 69% of them address African Development Bank public and population health research agenda and SDG priority areas. Specifically, 26.8% are on infectious diseases, 17.5% about health systems & policy research, while 14.7% and 14.3% are on maternal & child health and reproductive health respectively.

**Early Career Researchers**

CARTA offers a well-thought-out approach to rebuild and strengthen African universities’ capacity to produce world-class researchers, research leaders, and scholars. The approach involves maintaining a pipeline of high-quality early career researchers on the continent. This enables it to fulfill its goal of creating a positive impact on public and population health. According to Catherine Kyobutungi, the Executive Director at the African Population Health Research Center, and CARTA co-Director, CARTA has many components that target both the fellows directly and those that deal with the environment the fellows come from. "Examples are faculty and administrative staff seminars, the staff at the university and supervisors. These are the different people that contribute to a successful PhD experience within a university setting to make the student’s experience better," she says.

The incoming Chairperson of CARTA, Funke Fayehun, agrees with Catherine Kyobutungi and says that CARTA fellows and Graduates are trained to be change agents at their universities from the beginning. "As partner institutions, we should recognize the need to build their capacity as emerging leaders."

**Mainstreaming of CARTA Interventions**

Funke, who is faculty at the University of Ibadan and CARTA co-focal person in that institution, aptly captures the essence of CARTA’s mainstreaming efforts. She puts it that "the key motivation in mainstreaming CARTA interventions at our University was to improve doctoral training as a whole to have quality outputs in terms of scholarly training."

Since its inception, CARTA has endeavored to have its interventions mainstreamed. CARTA does this by creating supportive research environments in African partner institutions. These include workshops and seminars targeting the supervisors and critical staff members. CARTA also supports partner institutions to run existing CARTA interventions independently.

According to Sharon the institutions that take some of CARTA’s programs will help in attracting PhD holders to return to the continent. She said that successful mainstreaming of CARTA interventions relies on “strong universities that have strong and ethical leadership and governments that invest in education.”

Sunday Adedini, a CARTA graduate, believes that the gains from mainstreaming CARTA innovations will be diffused beyond CARTA partner institutions. "When institutions give platforms to CARTA fellows to operate and offer what they have learned, we will see even more changes happening," he says.

As with the SIDA study, which found the CARTA model to be one that can be applied more broadly, many have already seen benefits of CARTA innovations. Francois Niragire, a CARTA Graduate and faculty member at the University of Rwanda attested that “based on CARTA innovations, we devised strategies that would help us bring about changes in doctoral training practice at our University.”

**CARTA 2025**

Based on these successes, CARTA is looking ahead and planning on what next. The programmatic period between 2021 and 2025 is referred to as CARTA2025. This next phase builds on the previous CARTA 2016 to 2020 strategy and enhances them with the inclusion of two new strategies. One of the new strategies is the creation of thematic research hubs. They will be multidisciplinary, cross-institutional research hubs in partner universities, which will be done through a competitive selection of host institutions. CARTA will provide support for the establishment of research teams that incorporate early career researchers. The research hubs will co-design research agendas and develop large-scale competitive grant proposals, embedding PhD and postdoctoral training.

Another pillar of CARTA 2025 will be the enhancement of its engagement with society by facilitating partnerships between research hubs and policy actors through co-design of research and by strengthening CARTA early career researchers’ capacities in science communication, policy engagement, and knowledge translation.

A glance at the continent’s current PhD capacity situation vis a vis ten years ago shows a great improvement. The goal that CARTA set out to achieve is well on course, and its methods are working as espoused in reports like the one done by Sida. The promotion of research excellence best illustrates CARTA’s achievements through fellows who together have authored over 1058 articles in refereed journals cited widely. CARTA has continued to focus on the maintenance of a pipeline of high-quality early career researchers on the continent and the creation of a supportive research environments in African partner institutions to enable the mainstreaming of CARTA’s innovations. We look forward to a brighter 10 years ahead!
CARTA is established with funding from the Wellcome Trust’s ‘African Institutions Initiative’ with 9 African Universities and 4 African research institutions.

Intra-consortium collaborative agreement is signed in September.

Recruitment of the first cohort of 25 CARTA PhD fellows.

Official launches are held at seven of the African University partners.

The first Board of Management and Partners Annual Forum are held.

Three Cohorts of 66 fellows enrolled across partner African Universities.

35 peer-reviewed articles have been published by CARTA fellows.

70 PhD supervisors have been trained.

The first Joint Advanced Seminars (JAS) and Faculty and Administrative Staff Seminar takes place.

Over 40% of fellows had received additional research grants from various funders.

Supported research has contributed to over 200 peer-reviewed publications.

The first Graduate Workshop is held.

The first post-doctoral fellowships and re-entry grants are awarded.

CARTA fellows have raised additional grants totaling approximately $18.5m.

223 academics from CARTA institutions trained as supervisors to CARTA fellows.

140 CARTA fellows have published 806 articles in peer-reviewed journals – with 41% of the papers having a CARTA fellow as first author.

The first institutional grants are awarded.

230 PhD fellows enrolled in 10 cohorts across 12 African universities and research institutions.

96 Graduates.

Publications available in over 6300 online versions and have been cited in over 5500 other publications.
A Funder’s Reflection on CARTA’s Achievements Ten Years on

By Andrea Johnson, The Carnegie Corporation, New York

Ten years certainly is a milestone for any project and well worthy of congratulations. For CARTA, an organization led by thoughtful professionals, the milestone also offers a moment for reflection. As a CARTA funder for most of the first ten years and representing the Carnegie Corporation, I am honored to contribute to these reflections.

At the time that CARTA emerged as a partner in the Wellcome Trust’s African Institutions Initiative, the Corporation had been funding the continent’s higher education space for about ten years. Then, we were focusing on strengthening African universities and beginning to transition into a response to a question posed to us by vice-chancellors of African universities: “Where are the African academics of the future going to come from?”

It was a critical question. African universities had been severely weakened by structural adjustment programs, repressive governments, and government policies favoring unfettered university expansion over considered, well-funded growth. At the same time, demographics were not in the universities’ favor, with a sizeable cohort of academics reaching retirement age and severe bottlenecks to attracting, developing, and retaining talented younger cohorts. Our strategy of supporting a small number of “universities on the move” worked well for individual university agendas but would only make a small dent in the widely shared problem of developing and retaining a substantially new generation of academics. And so, we began reviewing potential new strategic frameworks.

When advocates of CARTA contacted us, we had already identified postgraduate training and research networks as a potentially fruitful entry point for building cohorts of new academics. The CARTA model addressed many of the same issues we had identified, that is, the need to strengthen research skills training that is available in the continent and responsive to the same issues we had identified, that is, the need to strengthen research skills training that is available in the continent and responsive to the understanding of the subject matter. Finally, I have always admired CARTA’s high standards of performance and its adherence to them. “Quality” is a much-debated concept, but, in the end, it simply means that graduates of the doctoral program are on the path to be able to develop research agendas and questions that matter to the field and the context, to carry out research that produces results that are credible to peers, and to disseminate those results in ways that move the field forward and contribute to the understanding of the subject matter.

The founders did not rely on universities outside Africa to provide doctoral training, which denies the benefits of learning-by-doing to African universities and neglects the importance of training in context. In a bid to tap into global talent, exposure, and opportunities however, they invited universities outside Africa to partner with CARTA. The founders further examined the results of their consultations and their various attempts at institutional strengthening as there was no definitive roadmap existing for strengthening institutional capacity and then developed CARTA’s “theory of change.”

Second, having a theory of change allowed CARTA leaders, members, and other stakeholders to engage in a learning process. The results of learning taken seriously are evident both in the successes we are observing (number of graduates, publications, grants received) and in the evolution of the CARTA model. For example, at the beginning, postdoctoral support didn’t feature strongly, but as fellows began to graduate, CARTA foregrounded “Securing the Future” as a priority, understanding that the possession of a PhD was not the end of the research training journey. Supporting the strengthening of research environments also took on new dimensions as the severity of the bottlenecks to change became increasingly apparent.

Finally, I have always admired CARTA’s high standards of performance and its adherence to them. “Quality” is a much-debated concept, but, in the end, it simply means that graduates of the doctoral program are on the path to be able to develop research agendas and questions that matter to the field and the context, to carry out research that produces results that are credible to peers, and to disseminate those results in ways that move the field forward and contribute to the understanding of the subject matter.

CARTA’s selection process, training modules, and other supportive activities are designed and implemented to ensure that the standards can be maintained.

No network can remain the same and hope to fulfill the needs of its members and their constituencies. CARTA is not the same network it was when it began, and I am confident it will continue to evolve to meet the new needs and challenges that its members may face in its next ten years.

Andrea Johnson is the Program Officer, Higher Education and Research in Africa and Peacebuilding in Africa, at Carnegie Corporation, New York.
Meet Cohort Ten Fellows

Alice Muhayimana

Aline Uwase

Aneth Vedastus Kalinjuma

Apatsa Selemani

Beryl Chelangat Maritim

Chinenyenwa Maria Dorathy Ohia

Duncan Wekesa Nyukuri

Emmanuel Nzabonimana

Frederick Oporia

James Muleme

Jean Allen

Kangethe James
Meet Cohort Ten Fellows

Kganetso Sekome
Marifa Muchemwa
Mary Ugalahi

Maureen Daisy Majamanda
Monday Daniel Olodu
Oluwatosin Eunice Olorunmoteni

Omotade Ijarotimi
Patience Shamu
Shakeerah O. Gbadebo

Stefanie Vermaak
Takondwa Bakuwa
Temitope Ojo
Yetunde Onimode
The year 2020 may have been overshadowed by the COVID-19 pandemic, but that did not deter CARTA from celebrating a decade since its founding. The CARTA@10 celebrations marked virtually showcasing our impact and inspired us for the future while highlighting our contribution to the development of a vibrant African academy capable of leading world-class multidisciplinary research.

The celebrations featured several campaigns that embodied the essence of CARTA’s ten years of existence. They included webinars, a scientific conference, social media campaigns, and articles published by fellows, graduates, focal persons, and co-directors in various news outlets. The 10th-anniversary events celebrated our rich history, showcased our impact, and served as inspiration towards embracing the immediate future direction of the Program with CARTA2025.

CARTA @ 10 Webinars

1. CARTA History and Milestones Webinar
   
   We kicked off the CARTA @ 10 webinar series with the ‘CARTA History and Milestones Webinar’ on September 28, 2020. The webinar, whose panelists included the CARTA co-directors - Alex Ezeh, Sharon Fonn, and Catherine Kyobutungi, and moderated by Florence Sipalla, Communications Manager at APHRC, entailed reflections on the program’s successes achieved through contributions by the fellows and partner institutions. Its main goal was to celebrate the remarkable contribution that CARTA had made in the past decade; the impact it has had on partner institutions; and the role it has played in building research and postgraduate training across the continent.

   The recording is available on our YouTube page here.

2. Mainstreaming of CARTA Interventions at Partner Institutions
   
   The second webinar in the CARTA@10 webinar series: ‘Mainstreaming of CARTA Interventions at partner Institutions’ was held on October 5, 2020. This webinar sought to illustrate the processes of mainstreaming CARTA interventions in partner universities while also pointing out possible barriers and how to overcome them. Its panelists included Funke Fayehun (from the University of Ibadan), Sunday Adedini (from the Obafemi Awolowo University), and François Niragire (from the University of Rwanda), all of whom had lead mainstreaming projects in their respective institutions.

   The recording is available on our YouTube page here.

3. Funding Postdoctoral Training & Research Capacity Strengthening in Africa
   
   The third and last webinar in the CARTA @ 10 series was held on November 2, 2020. The panelists, who were funders of the Program, sought to enlighten existing and potential grantees on the funding landscape in Africa, while also sharing their experiences with and reflections on CARTA over the last decade. They included Andrea Johnson of Carnegie Corporation, Maria Teresa Bejarano from Sida, and Alphonsus Neba of the African Academy of Sciences.

   The recording is available on our YouTube page here.

CARTA @ 10 Scientific Conference

CARTA @ 10 Scientific Conference was held on December 3 and 4, 2020. The conference offered an opportunity for researchers and presenters to interact and learn about new research presented. Over 100 participants attended the conference. This was the last and biggest event in the CARTA@10 series.

CARTA fellows and graduates presented their research work, mainly in the areas of health systems, non-communicable diseases, ageing, sexual and reproductive health rights, infectious diseases, and immunization. Additionally, the conference offered an opportunity for researchers and presenters from different institutions around the world to interact and learn more about the research presented.

The pre-recorded talks are available here on our YouTube channel and you can still visit the conference page to learn more about the presentations.

Media Articles

CARTA fellows, graduates, and focal persons published a number of articles during the CARTA @ 10 celebrations. A total of 14 articles were published by various media outlets including The conversation, Standard Media Group (Kenya), Medical Express, US News, and World Report, Modern Ghana and Africa Eye Report.

Campaigns on social media contributed immensely toward the success of the CARTA@10 celebrations. CARTA fellows, graduates and focal persons shared testimonials of what the celebrations meant to them through the hashtag CARTA10. Through such engagements, targeted audiences on social platforms including Twitter and Facebook were reached.

As the curtain falls on the first ten years of CARTA, it will not be lost in history that this decade saw a significant step toward building capacity for population and health-related research in Africa. The testimonials and congratulatory messages were a sign of a fruitful phase. All eyes are now on the prize, that is CARTA2025, as all stakeholders’ work toward a brighter future.
Betty Karimi, a Cohort Six Fellow, recently graduated with a PhD in Design from the University of Nairobi, Kenya. Here, she shares with the CARTA Communications Officer, Gloria Chemutai, her journey as a doctoral student and her thoughts on doctoral training in Africa.

Tell us a little about yourself and your research interests

I am a recent PhD graduate from the University of Nairobi and a Tutorial Fellow at the School of the Arts and Design, College of Architecture and Engineering, where I teach both undergraduate and postgraduate students in Graphic Design and Design Research Methods. My research interest is in design for Health, which informed my PhD studies and saw me engage with communities in informal settlements within Nairobi in designing health promotion strategies towards the prevention and management of non-communicable diseases. I am a champion of the Design Thinking Methodology, which promotes the involvement of end-users of a product in problem-solving for various challenges they face daily.

Can you summarize your journey as a CARTA fellow in two or three sentences?

My journey as a CARTA fellow can be summarized as memorable. The knowledge and exposure gained in the travels and training as a PhD student are incomparable to any other. I cannot be more grateful for the milestones I have achieved in my research career.

What inspired you to keep going as a student?

It is always said during conferment of a degree that one is ‘empowered to read and do all that pertains to that degree’. This message was a constant tune in my head. The challenges faced were many; the work-life-family balance was a constant. But I took this challenge as an inspiration to better myself and those around me in the form of progression and empowerment. And truthfully, I have seen this come to light both as a mentor and tutor in and out of the classroom setting.

How did you manage the pressure of pursuing a doctoral degree amid the COVID-19 pandemic?

The pressure was endless. First, the University was forced to shut down, and new learning methods had to be adopted to avoid further teaching delays. Having to adjust to a new-normal of online interactions with supervisors was one. However, we managed to progress well, and I successfully defended my PhD thesis over a two-hour interaction with the examination panel. Lesson learned from this is that there is more than one way to skin a cat.

What lessons have you drawn from being a CARTA fellow that you can share with others in the journey?

Prioritize. It is never easy juggling balls but as I once read somewhere, the balls are a blend of plastic ones and glass ones. Choose the ones to drop and those to clasp. The plastic ones will always bounce back, and you will catch them at some point, but the glass ones need constant holding on to. As a CARTA fellow, I learned that passion and drive to accomplish what you need have to be your focal points.

Do you think that there is a particular trait that you must have to succeed as a doctoral student?

Perseverance. Though tedious, the journey has to be completed and completed well. Never give up even when the ride seems impossible. The advantages outweigh the disadvantages.

What advice can you offer women who wish to pursue their PhDs? And what do you think can set them back from pursuing further education?

The playing field has changed over the years. Women are now more empowered to pursue their career goals limitlessly. Take up the chance when offered and outdo yourself. Family, especially, can be a set-back, but it is still possible to make ends meet. Choose wisely how to balance the balls. A great support system is also essential when trying to reach these goals. CARTA offers a unique programme that allows women to pursue their studies while still raising and nurturing their young ones. When I began the programme in 2016, the flexibility of the training allowed me to stay home with minimal travels with my then two-and-half-year old and still finish my degree in slightly over three years!

As a PhD graduate from an African institution, what do you think of doctoral training in the continent?

For a long time, the quality of training for PhD programs in African institutions has been questioned. Is it competitive globally? Can it be counted on in the development of African nations? I can say that the training and exposure I got from my training is exemplary. The interactions from the various Professors in the global spectrum and the conferences I have attended within Africa and outside have broadened my research and networking skills.

As CARTA marks a decade, what would you like to see CARTA become in the next ten years? And how do you see doctoral training growing in Africa in the next ten years?

CARTA has grown from inception. I was in the Sixth Cohort, and fellows from the previous Cohorts have mentored me. As such, I continue to mentor those in subsequent Cohorts and those within my institution not affiliated to CARTA. Continued mentorship of early-career researchers is a key highlight within the CARTA network. Additionally, the expansion of the CARTA programme to other African institutions would be incredible. Exposure and networking with outside partners from your institution is vital.
Health Research in Africa: Jude Igumbor’s Take

As CARTA turned ten, we deemed it necessary to explore the impact of research in the African health field. Jude Igumbor, a CARTA Focal Person at the University of the Witwatersrand who has published and analyzed widely in this space, is best placed to put the same in context. He spoke with the CARTA Communications Office, Gloria Chemutai.

You recently published a study about the impact of CARTA-supported research in the African health research landscape. Tell us about this passion for developing knowledge about capacity building programs in the continent.

Being part of the CARTA family is a privilege that makes one dare even such a seemingly insurmountable feat. CARTA grants me access and opportunities to pursue such passion with great ease. More importantly, after years of existence of programs such as CARTA, with demonstrable levels of success; developing knowledge about them seems like the next logical step. This will not only enable the strengthening, replication and harnessing of opportunities developed by such programs but also allows for mapping and recognition of the excellence they have produced in the form of human capital and/or methodologies. Such opportunities include and are not limited to identification of research infrastructure, promoting collaborations and opportunities for resource optimization in the face of scarcity.

You are working on a project to further CARTA’s capacity for knowledge management and impact evaluation. Tell us a little on how you thought about and developed the idea. Also, what will you be doing and what do you think will be the impact of your work?

The new project is an extension of our initial work and publication on the scientific contribution of CARTA fellows to the Strategic Development Goals. Therefore, there is a dialectical relationship between the old and the new. The initial work was done manually, with next to zero budget and rudimentary tools of analysis. While recognizing the limitations, our initial work has strengthened our resolve to do more in an attempt to harness the outputs of capacity building programs already described and to identify communities of practice and organic “critical mass of research-oriented change-agents across the continent” as envisioned by CARTA. This goal will be achieved through further collaboration, deeper analysis and synthesis, improving visibility and facilitating the uptake of the empirical and theoretical evidence produced by CARTA fellows. It is my hope, and drawing on experience gained from the initial work, that this project will be more systematic, nuanced and accurate in identifying unique research capacities and commonalities to facilitate synergies, collaborations, drive innovation and knowledge translation in the CARTA network.

You say that African countries bear a disproportionate burden of infectious and non-communicable diseases; beyond improving

doctoral training, what more should be done to ensure increased research output in those areas?

Doctoral education and mentorship of emerging researchers are inseparable from the equation because of the efficiencies that they offer and the “economies of scale" of creating capacity to produce more research. This falls under and partially fulfills the CARTA Theory of Change, which offers a workable model for the continent. The need to develop a critical mass of younger researchers takes into consideration current global transitions in research methodologies and knowledge creation using novel technological solutions. Ensuring the availability of basic infrastructure and promoting conducive environment for research through stronger research governance is vital; identifying, supporting, and retaining talent in the continent is crucial; promoting multi and/or cross-disciplinary collaborations to address complex research questions in Africa consistent with and responsive to existing theories and epistemology is equally important. Therefore, there is a need to identify and foster African research networks to help in this regard. This includes tasking such groups with the responsibility of rethinking how knowledge is produced and used in the continent in a responsive and responsible manner. More importantly, there is dire need for increased advocacy and lobbying of African governments to honor their financial commitment to research and higher education training – true self-reliance will not be achieved without strong information and research capacity by countries. Lastly, we need to consider, accommodate and harness possible gender differences and intersectionality in knowledge creation.

What do you say about CARTA fellows’ scientific contribution to the African public and population health? Are we there yet? Or do we still have some way to go?

To arrive is the beginning of another journey. Focus has been on the journey whose first leg has proven that it was/is a journey worth undertaking. CARTA fellows have contributed significantly to the creation and translation of scientific knowledge on public and population health either individually or in research groups. Over a thousand publications by a fraction of PhD students from eight African universities in 10 years is remarkable by every standard. However, until Africa is able to consistently face its public and population health challenges and targets with the confidence of meeting them, then it’s “work in progress” for CARTA fellows and graduates, beneficiaries of similar networks and all key stakeholders across Africa. What is left can be a function of time as the fellows mature into strong independent researchers or could be achieved through development of deliberate programmes to promote collaborations and critical mass or communities of practice to maximize capacities targeting Africa’s scientific research and development priorities. Such initiatives may be gradual and incremental depending on available resources or could benefit from additional funding by African governments and international development partners. African scientists may also think of ways of commercializing products of our research as means of cultivating a culture of self-sustainability and growth.

As a CARTA focal person, how can you and others help bring research findings closer to audiences that may otherwise not hear about the progress being made?

This speaks to visibility, publicity and community/audience involvement. This may be achieved through tailoring research knowledge for our different audiences, either in the form of policy briefs, plain language summaries of research findings, simple infographics and factsheets, encouraging researchers to participate in community level fora and technical advisory groups or organizing multi-stakeholder symposia. Research findings can also be brought closer to wider target audiences using appropriate information technology solutions that are accessible to national leadership, policy makers, community leaders and our diverse audiences. Training scientists to use these different tools is critical and may involve building partnerships with faculties of universities with specialist ability to develop such alternative communication methods.

CARTA has turned ten; what do you wish CARTA will be able to accomplish in the next ten years to come?

CARTA is like a child transitioning to adolescence. Therefore, I wish for further growth and development, and a defined status of CARTA in scientific research in Africa for increased decision making in deciding the future of the continent. This calls for increased support for fellows to become independent researchers, facilitation of collaborative activities between fellows, institutionalization of CARTA strategies and activities across original partner institutions, and addition of affiliate partner institutions to receive differentiated support particularly in the area of research governance and supervisors training. I also wish to see further research on the CARTA experience and “secret sauce" to foster its replication and implementation of lessons from the first 10 years of CARTA, including advocacy stakeholder activities.
Incoming CARTA Board Chair on Her Promise to “do more, go further”

With a great sense of duty and responsibility, I take on the Chair of the CARTA Board of Management after a decade of pace-setting and path-breaking efforts of visionary and resourceful founders, partners, chairs, focal persons, fellows, and graduates of the program. I realize that using the resources within African academic networks and non-African partners to build early career researchers’ capacity in African institutions is one of the most significant investments of the 21st century.

What is clear is that CARTA has created a path that future generations of population and public health researchers in Africa will follow and build on. This path is multifaceted with a realistic, well-thought-out goal, strategic thrusts, and initiatives led by Africans. It is in a bid to strengthen its universities’ capacity and produce a critical mass of well-trained and skilled researchers and scholars working in research-supportive environments to improve population and public health. In the past decade, it is remarkable that CARTA has trained many early career researchers and mainstreamed some of its interventions into African institutions.

While we acknowledge that research capacity building in higher education remains a significant challenge with the entire continent contributing less than 2% to global knowledge output, we are optimistic that CARTA initiatives will build bridges and fill these gaps. The CARTA program has already generated tested best practices that are methodologically adaptable and effective. Adopting these best practices will improve the quality of graduate training and research outputs, contributing to strategic policy priority setting and implementation in Africa. As CARTA celebrates ten years, we further look towards a bright future of creating research hubs within African institutions. The research hubs will secure the future of CARTA graduates as leaders in their research fields and strengthen graduate training in the continent.

Having accepted the responsibility of chairing the CARTA board for the next two years, with the hope of leading it to higher levels, I will continue to build on CARTA’s successes while upholding the values and mission of the consortium in harmony with the partnering institutions. Given what those before had accomplished, it would seem like we are achieving our goals. However, the last ten years’ achievements show that we need to do more and go further. The CARTA board will encourage more collaborations, partnerships, and inclusiveness within and outside the consortium, thus strengthening research capacity in Africa. Together, we will continue to promote African led research that will inform policies for the continent while building the capacity of the future generations in population and public health.

CARTA@10: Fellows and Graduates Say

**Funke Fayehun**

Incoming CARTA Board Chair, 2022

CARTA@10 is a celebration of a decade of producing high-class African scholars for Africa in Africa. Before I was offered the CARTA fellowship, I was faced with uncertainties and anxieties about enrolling for a PhD, primarily because I had limited exposure to people who could inspire, mentor, and motivate me through the journey. Attending the first CARTA Joint Advanced Seminar (JAS 1) was an ultimate experience. The seminar was arranged to offer opportunities for interacting with seasoned, world-class researchers from Africa and beyond. JAS 1 also provided opportunities for peer mentoring from fellows from other cohorts and mine. These interactions with researchers who had a varied range of experience and expertise did not only challenge my intellectual capacity but also stimulated my inner drive to aim higher. This level of engagement was sustained through all the four CARTA JASes. One of the many things I have learned through CARTA is the need to seize opportunities that come my way.

**Chimwemwe Kwanjo Banda**

(Cohort Six Fellow)

Lecturer, Medical and Surgical Nursing Department, University of Malawi

**Nanfizat Abiket Alamukii**

(Cohort Nine Fellow)

Lecturer, Department of Zoology, Cell Biology and Genetics programme at the University of Ibadan

CARTA is a platform that exposes PhD candidates to research curriculum in Public Health, skills in communication and writing, and current and advanced methods in teaching and learning at partner Institutions. There are many benefits attached to being a CARTA fellow. Besides the training by well-recognized faculty across Africa, one great advantage of being a fellow is that CARTA monitors your progress to ensure your academic careers’ success. This is a rare advantage when compared to other fellowship platforms available for PhD candidates. One can say, having a CARTA fellowship is all you need to start your academic career because the training is all-encompassing, from PhD research training and support to post-doctoral opportunities.
Raising the total count of CARTA graduates to 96. Attended different statistical analysis, research methods workshops, and moved forward. Nine fellows have graduated with PhD qualifications in 2020, resorted to virtual training to enhance their skills. 134 fellows and graduates contributed 17 articles in the Conversation, AAS blog, Standard Newspaper and graduations online. Our fellows have not missed the opportunity to perform in the global arena of knowledge. Since international travel was brought to a minimum this year, our fellows have had to turn to virtual training to enhance their skills. The Joint Advanced Seminars (JASes), online literature review workshop (ESE:O), monitoring and evaluation workshop (ESE:OE), online teaching methodologies, have been instrumental in enhancing our research capacity. CARTA programs have made my doctoral study a lot easier, more competitive, and scholarly. The Joint Advanced Seminars (JASes), online literature review workshop (ESE:O), monitoring and evaluation workshop (ESE:OE), online teaching methodologies, have been instrumental in enhancing our research capacity. CARTA fellowship is an ideal program that suited my wish list for a career in research and academia. While acknowledging the wealth of knowledge and experiences gained through CARTA over the years, the remarkable transformation for me, was evident after the literature review writing course (ESE:O), and the grant writing sessions attended during and after my PhD studies. To this end, I have authored and co-authored 11 journal articles, and have several more in the works; I have also been awarded five research grants of which I am/was the Principal Investigator. I attribute the level of my success in academics and research to the CARTA fellowship, and I look forward to more innovative and exciting future projects.

Congratulations to CARTA for her 10th year of remarkable impact on African public health researchers and their research outputs. Generally evaluating my doctoral and professional journey since I became a CARTA fellow, I can confidently say that CARTA has rebranded my teaching and research capacity. CARTA programs have made my doctoral study a lot easier, more competitive, and scholarly. The Joint Advanced Seminars (JASes), online literature review workshop (ESE:O), monitoring and mentoring, the milestones and timelines, and other opportunities work together as a synergy to make my doctoral training a desirable one. My critical thinking, research design, and scientific writing skills have tremendously improved, culminating in quality scientific writings that are beginning to turn in. These and many more are the benefits upcoming fellows stand to gain. Thanks to the visionary initiators, administrators, partners, and ultimately the funders of CARTA's inestimable ideals.

What is New

Fellows’ News

Graduations During the COVID-19 Pandemic

Despite the adversity and the initial shut down of activities, several of our partner universities have resumed postgraduate examination processes and graduations on-line. Our fellows have not missed the opportunity to move forward. Nine fellows have graduated with PhD qualifications in 2020, raising the total count of CARTA graduates to 96.

In the Media

In 2020, CARTA fellows, graduates, focal persons, and co-directors contributed 17 articles in the Conversation, AAS blog, Standard Newspaper (Kenya), Medical Express, US News & World Report, and SAFM.

Virtual Training

Since international travel was brought to a minimum this year, our fellows resorted to virtual training to enhance their skills. 134 fellows and graduates attended different statistical analysis, research methods workshops, and many more, organized by over 80 organizations and institutions including APHRC, University of the Witwatersrand, Research for Democracy in Tanzania, Makerere University, University of Rwanda, University of Nairobi, World Health Organisation, etc.

Partners’ News

Announcing a New African Partner: The University of Zambia

CARTA is proud to announce a new African partner, the University of Zambia (UNZA). The university joined CARTA as an associate member in September 2020. The collaboration shall focus on CARTA fellowships and training support, mentorship from other CARTA partner institutions, and promotion of collaborations, networking, and partnerships with other institutions.

Announcing the New Chairperson of CARTA Board of Management: Dr. Funke Fayehun

Funke Fayehun from the University of Ibadan was elected as the new Chairperson of the Board of Management (BoM) of CARTA for the period 2021 to 2022. Funke is a senior lecturer in Sociology at the University of Ibadan. She will lead the board in providing critical leadership vital to CARTA. CARTA is grateful to her predecessor Pierre Claver Rutayisire for the service provided these past two years.
10 years of CARTA

External grants raised by fellows

$19,945,919

Graduates by Gender

53%

47%

Total of peer-reviewed publications.

1138 Publications

CARTA is funded by the Carnegie Corporation of New York (Grant No–B 8606.R02), Sida (Grant No: 54100113), Uppsala Monitoring Centre (UMC), the Deutscher Akademischer Austauschdienst (DAAD) and the DELTAS Africa Initiative (Grant No: 10776B/2/15/2). The DELTAS Africa Initiative is an independent funding scheme of the African Academy of Sciences (AAS) ’s Alliance for Accelerating Excellence in Science in Africa (AESA) and supported by the New Partnership for Africa’s Development Planning and Coordinating Agency (NEPAD Agency) with funding from the Wellcome Trust (UK) and the UK government.

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Graduates by Gender

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